

AMENDMENTS TO THE CLAIMS

The listing of the claims will replace the previous version, and the listing of the claims:

LISTING OF CLAIMS

1. (currently amended) A two-color radiation thermometer for measuring a temperature of an object, comprising:

only one image pickup device having a light receiving surface with a plurality of micro photo receiving elements arranged two-dimensionally, said light receiving surface having a first area and a second area, wherein said only one image pickup device is one CCD image sensor,

light diverging means for selecting a first spectrum and a second spectrum, and guiding light radiated from the object in the first spectrum toward the first area, and guiding light radiated from the object in the second spectrum toward the second area,

a ~~wave~~ wavelength limitation device formed at a front side of the image pickup device for selecting first and second wavelengths of the light irradiated on the first area and the second area, and

temperature calculation means electrically connected to the image pickup device, said temperature calculation means receiving a first image signal corresponding to the first wavelength from the micro photo receiving elements located in the first area and a second image signal corresponding to the second wavelength from the micro photo receiving elements located in the second area, and calculating the temperature of the object based on the first and second image signals.

2. (previously presented) A two-color radiation thermometer according to claim 1, wherein said light diverging means is a prism.

3. (cancelled)

4. (original) A two-color radiation thermometer according to claim 1, wherein said light diverging means includes a first polarizing beam splitter for guiding the light with a first polarized light wave toward the first area and a second polarizing beam splitter for guiding the light with a second polarized light wave toward the second area.

5. (currently amended) A two-color radiation thermometer according to claim 4, wherein said ~~wave~~ wavelength limitation device further includes a first wavelength filter for guiding the first polarized light toward the first area and a second wavelength filter for guiding the second polarized light toward the second area.